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RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/938,112

TIME: 11:16:45

Input Set : A:\D2875DIV.ST25.txt

Output Set: N:\CRF3\09182001\I938112.raw

3 <110> APPLICANT: Donovan, Stephen
 5 <120> TITLE OF INVENTION: Clostridial Toxin Derivatives and Methods for Treating Pain
 7 <130> FILE REFERENCE: D-2875DIV
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/938,112
 C--> 9 <141> CURRENT FILING DATE: 2001-08-23
 9 <150> PRIOR APPLICATION NUMBER: US 09/489,667
 10 <151> PRIOR FILING DATE: 2000-01-19
 12 <160> NUMBER OF SEQ ID NOS: 18
 14 <170> SOFTWARE: PatentIn version 3.1
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 11
 18 <212> TYPE: PRT
 19 <213> ORGANISM: Unknown
 21 <220> FEATURE:
 22 <223> OTHER INFORMATION: Description of Unknown Organism: This is a substance P and is
 ve
 23 ry well known in the art.
 25 <220> FEATURE:
 26 <221> NAME/KEY: MISC_FEATURE
 27 <222> LOCATION: (11)..(11)
 28 <223> OTHER INFORMATION: Xaa at position 11 is Methionine Amide
 31 <400> SEQUENCE: 1
 W--> 33 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Xaa
 34 1 5 10
 37 <210> SEQ ID NO: 2
 38 <211> LENGTH: 12
 39 <212> TYPE: PRT
 40 <213> ORGANISM: Unknown
 42 <220> FEATURE:
 43 <223> OTHER INFORMATION: Description of Unknown Organism: Precursor to substance P,
 which
 44 is very well known in the art.
 46 <400> SEQUENCE: 2
 48 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly
 49 1 5 10
 52 <210> SEQ ID NO: 3
 53 <211> LENGTH: 13
 54 <212> TYPE: PRT
 55 <213> ORGANISM: Unknown
 57 <220> FEATURE:
 58 <223> OTHER INFORMATION: Description of Unknown Organism: This is a precursor to
 substanc
 59 e P and is very well known in the art.
 61 <400> SEQUENCE: 3
 63 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys
 64 1 5 10
 67 <210> SEQ ID NO: 4
 68 <211> LENGTH: 14

ENTERED

69 <212> TYPE: PRT
70 <213> ORGANISM: Unknown

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72 <220> FEATURE:
73 <223> OTHER INFORMATION: Description of Unknown Organism: This is a precursor to
substanc
74     e P and is very well known in the art. ✓
76 <400> SEQUENCE: 4
78 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Arg
79 1           5           10
82 <210> SEQ ID NO: 5
83 <211> LENGTH: 12
84 <212> TYPE: PRT
85 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester ✓
synt
89     hetic precursor to substance P.
91 <220> FEATURE:
92 <221> NAME/KEY: MISC_FEATURE
93 <222> LOCATION: (12)..(12)
94 <223> OTHER INFORMATION: Xaa at position 12 is Glycine Methyl Ester
97 <400> SEQUENCE: 5
W--> 99 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Xaa
100 1           5           10
103 <210> SEQ ID NO: 6
104 <211> LENGTH: 13
105 <212> TYPE: PRT
106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester
synt
110     hetic precursor to substance P. ✓
112 <220> FEATURE:
113 <221> NAME/KEY: MISC_FEATURE
114 <222> LOCATION: (13)..(13)
115 <223> OTHER INFORMATION: Xaa at position 13 is Lysine Methyl Ester
118 <400> SEQUENCE: 6
W--> 120 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Xaa
121 1           5           10
124 <210> SEQ ID NO: 7
125 <211> LENGTH: 14
126 <212> TYPE: PRT
127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester ✓
synt
131     hetic precursor to substance P.
133 <220> FEATURE:
134 <221> NAME/KEY: MISC_FEATURE
135 <222> LOCATION: (14)..(14)
136 <223> OTHER INFORMATION: Xaa at position 14 is Arginine Methyl Ester
139 <400> SEQUENCE: 7
W--> 141 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Xaa
142 1           5           10
145 <210> SEQ ID NO: 8

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146 <211> LENGTH: 12
147 <212> TYPE: PRT
148 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
151 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester
synt
152      hetic precursor to substance P. ✓
154 <220> FEATURE:
155 <221> NAME/KEY: MISC_FEATURE
156 <222> LOCATION: (12)..(12)
157 <223> OTHER INFORMATION: Xaa at position 12 is Glycine Ethyl Ester
160 <400> SEQUENCE: 8
W--> 162 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Xaa
163 1          5          10
166 <210> SEQ ID NO: 9
167 <211> LENGTH: 13
168 <212> TYPE: PRT
169 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester
synt
173      hetic precursor to substance P. ✓
175 <220> FEATURE:
176 <221> NAME/KEY: MISC_FEATURE
177 <222> LOCATION: (13)..(13)
178 <223> OTHER INFORMATION: Xaa at position 13 is Lysine Ethyl Ester
181 <400> SEQUENCE: 9
W--> 183 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Xaa
184 1          5          10
187 <210> SEQ ID NO: 10
188 <211> LENGTH: 14
189 <212> TYPE: PRT
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: This is a carboxy-ester
synt
194      hetic precursor to substance P. ✓
196 <220> FEATURE:
197 <221> NAME/KEY: MISC_FEATURE
198 <222> LOCATION: (14)..(14)
199 <223> OTHER INFORMATION: Xaa at position 14 is Arginine Ethyl Ester
202 <400> SEQUENCE: 10
W--> 204 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Xaa
205 1          5          10
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 4
210 <212> TYPE: PRT
211 <213> ORGANISM: Unknown
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Unknown Organism: This is a naturally
occurring am
215      ino thermal peptide fragment derived from substance P. ✓
217 <400> SEQUENCE: 11

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RAW SEQUENCE LISTING

DATE: 09/18/2001

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Input Set : A:\D2875DIV.ST25.txt

Output Set: N:\CRF3\09182001\I938112.raw

219 Arg Pro Lys Pro
 220 1
 223 <210> SEQ ID NO: 12
 224 <211> LENGTH: 7
 225 <212> TYPE: PRT
 226 <213> ORGANISM: Unknown
 228 <220> FEATURE:
 229 <223> OTHER INFORMATION: Description of Unknown Organism: This is a naturally
 occurring am
 230 ino acid thermal peptide fragment derived from substance P. ✓
 232 <400> SEQUENCE: 12
 234 Arg Pro Lys Pro Gln Gln Phe
 235 1 5
 238 <210> SEQ ID NO: 13
 239 <211> LENGTH: 9
 240 <212> TYPE: PRT
 241 <213> ORGANISM: Unknown
 243 <220> FEATURE:
 244 <223> OTHER INFORMATION: Description of Unknown Organism: This is a naturally
 occurring am
 245 ino thermal peptide fragment derived from substance A ✓
 247 <400> SEQUENCE: 13
 249 Arg Pro Lys Pro Gln Gln Phe Phe Gly
 250 1 5
 253 <210> SEQ ID NO: 14
 254 <211> LENGTH: 11
 255 <212> TYPE: PRT
 256 <213> ORGANISM: Artificial Sequence
 258 <220> FEATURE:
 259 <223> OTHER INFORMATION: Description of Artificial Sequence: This is an analog of ✓
 substan
 260 ce P.
 262 <220> FEATURE:
 263 <221> NAME/KEY: MISC_FEATURE
 264 <222> LOCATION: (2)..(11)
 265 <223> OTHER INFORMATION: Xaa at position 2 is D-form of Proline, Xaa at position 7 is
 D-fo
 266 rm of Phenylalanine, Xaa at position 9 is D-form of Tryptophan, X
 267 aa at position 11 Methionine Amide
 270 <400> SEQUENCE: 14
 W--> 272 Arg Xaa Lys Pro Gln Gln Xaa Phe Xaa Leu Xaa
 273 1 5 10
 276 <210> SEQ ID NO: 15
 277 <211> LENGTH: 12
 278 <212> TYPE: PRT
 279 <213> ORGANISM: Artificial Sequence
 281 <220> FEATURE:
 282 <223> OTHER INFORMATION: Description of Artificial Sequence: This is an analog of ✓
 substan
 283 ce P.
 285 <220> FEATURE:
 286 <221> NAME/KEY: MISC_FEATURE
 287 <222> LOCATION: (2)..(9)

288 <223> OTHER INFORMATION: Xaa at positon 2 is D-form of Proline, Xaa at position 7 is
D-for

RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/938,112

TIME: 11:16:45

Input Set : A:\D2875DIV.ST25.txt

Output Set: N:\CRF3\09182001\I938112.raw

289 m of Phenylalanine, Xaa at position 9 is D-form of Tryptophan

292 <400> SEQUENCE: 15

W--> 294 Arg Xaa Lys Pro Gln Gln Xaa Phe Xaa Leu Met Gly

295 1 5 10

298 <210> SEQ ID NO: 16

299 <211> LENGTH: 11

300 <212> TYPE: PRT

301 <213> ORGANISM: Artificial Sequence

303 <220> FEATURE:

304 <223> OTHER INFORMATION: Description of Artificial Sequence: This is an analog of

substan

305 ce P. ✓

307 <220> FEATURE:

308 <221> NAME/KEY: MISC_FEATURE

309 <222> LOCATION: (2)..(11)

310 <223> OTHER INFORMATION: Xaa at position 2 is D-form of Proline, Xaa at position 7 is

D-fo

311 rm of Tryptophan, Xaa at position 9 is D-form of Tryptophan, Xaa ✓

312 at position 11 is Methionine Amide

315 <400> SEQUENCE: 16

W--> 317 Arg Xaa Lys Pro Gln Gln Xaa Phe Xaa Leu Xaa

318 1 5 10

321 <210> SEQ ID NO: 17

322 <211> LENGTH: 12

323 <212> TYPE: PRT

324 <213> ORGANISM: Artificial Sequence

326 <220> FEATURE:

327 <223> OTHER INFORMATION: Description of Artificial Sequence: This is an analog of ✓

substan

328 ce P.

330 <220> FEATURE:

331 <221> NAME/KEY: MISC_FEATURE

332 <222> LOCATION: (2)..(9)

333 <223> OTHER INFORMATION: Xaa at position 2 is D-form of Proline, Xaa at position 7 is

D-fo

334 rm of Tryptophan, Xaa at position 9 is D-form of Tryptophan

337 <400> SEQUENCE: 17

W--> 339 Arg Xaa Lys Pro Gln Gln Xaa Phe Xaa Leu Met Gly

340 1 5 10

343 <210> SEQ ID NO: 18

344 <211> LENGTH: 11

345 <212> TYPE: PRT

346 <213> ORGANISM: Artificial Sequence

348 <220> FEATURE:

349 <223> OTHER INFORMATION: Description of Artificial Sequence: This is an analog of ✓

substan

350 ce P.

352 <220> FEATURE:

353 <221> NAME/KEY: MISC_FEATURE

354 <222> LOCATION: (11)..(11)

355 <223> OTHER INFORMATION: Xaa at position 11 is Methionine Amide

358 <400> SEQUENCE: 18

W--> 360 Arg Pro Cys Pro Gln Cys Phe Tyr Gly Pro Xaa

361 1

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/938,112

DATE: 09/18/2001

TIME: 11:16:46

Input Set : A:\D2875DIV.ST25.txt

Output Set: N:\CRF3\09182001\I938112.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18